# NXF5a (V-19): sc-23722



The Power to Question

## **BACKGROUND**

Nuclear export factor (NXF) proteins belong to an evolutionarily conserved family of proteins which are characterized by a leucine-rich-repeat domain (LRR) followed by a region known as the Nuclear Transport Factor 2 (NTF2)-like domain. The NXF family includes TAP1 (NXF1) and NXF2-5. TAP1 mediates the export of constitutive transport element (CTE)-containing simian type D retroviral RNAs through direct binding to the CTE. NXF2 binds RNA and localizes to the nuclear envelope, where it exhibits RNA export activity. NXF3 does not bind RNA nor localize to the nuclear rim, and NXF3 does not exhibit RNA export activity. NXF5 binds RNA and localizes in the form of granules in the cell body and neurites of mature hippocampal neurons. TAP1, NXF2 and NXF5 form heterodimers with RNA nuclear export-associated protein p15 (NXT). The human NXF gene cluster maps to Xcen-NXF5-NXF2-NXF4-NXF3-Xqter.

## **REFERENCES**

- Herold, A., Suyama, M., Rodrigues, J.P., Braun, I.C., Kutay, U., Carmo-Fonseca, M., Bork, P., and Izaurralde, E. 2000. TAP (NXF1) belongs to a multigene family of putative RNA export factors with a conserved modular architecture. Mol. Cell Biol. 20: 8996-9008.
- Tan, W., Zolotukhin, A.S., Bear, J., Patenaude, D.J., and Felber, B.K. 2000. The mRNA export in *Caenorhabditis elegans* is mediated by Ce-NXF-1, an ortholog of human TAP/NXF and *Saccharomyces cerevisiae* Mex67p. RNA 6: 1762-1772.
- Braun, I.C., Herold, A., Rode, M., Conti, E., and Izaurralde, E. 2001.
  Overexpression of TAP/p15 heterodimers bypasses nuclear retention and stimulates nuclear mRNA export. J. Biol. Chem. 276: 20536-20543.
- Nappi, F., Schneider, R., Zolotukhin, A., Smulevitch, S., Michalowski, D., Bear, J., Felber, B.K., and Pavlakis, G.N. 2001. Identification of a Novel Posttranscriptional Regulatory Element by Using a rev- and RRE-Mutated Human Immunodeficiency Virus Type 1 DNA Proviral Clone as a Molecular Trap. J. Virol. 75: 4558-4569.
- 5. Jun, L., Frints, S., Duhamel, H., Herold, A., Abad-Rodrigues, J., Dotti, C., Izaurralde, E., Marynen, P., and Froyen, G. 2001. NXF5, a novel member of the nuclear RNA export factor family, is lost in a male patient with a syndromic form of mental retardation. Curr. Biol. 11: 1381-1391.

## **SOURCE**

NXF5a (V-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of NXF5a of human origin.

## **PRODUCT**

Each vial contains 200  $\mu g$  lgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-23722 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## **RESEARCH USE**

For research use only, not for use in diagnostic procedures.

#### **APPLICATIONS**

NXF5a (V-19) is recommended for detection of NXF5a of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1–2  $\mu$ g per 100–500  $\mu$ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

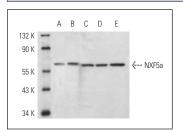
Molecular weight of NXF5a: ~65 kDa.

Positive Controls: SK-N-MC nuclear extract: sc-2154, PC-3 nuclear extract: sc-2152, H4 cell lysate: sc-2408, IMR-32 cell lysate: sc-2409 or SH-SY5Y cell lysate: sc-3812.

## **RECOMMENDED SECONDARY REAGENTS**

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/ 2.0 ml). 3) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## **DATA**



NXF5a (V-19): sc-23722. Western blot analysis of NXF5a expression in SK-N-MC (**A**) and PC-3 (**B**) nuclear extracts and H4 (**C**), IMR-32 (**D**) and SH-SY5Y (**E**) whole cell lysates

## **PROTOCOLS**

See our web site at www.scbt.com or our catalog for detailed protocols and support products.

#### **STORAGE**

Store at 4° C, \*\*DO NOT FREEZE\*\*. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.